



Tropical Update



8:30 AM EDT

Saturday, September 24, 2022

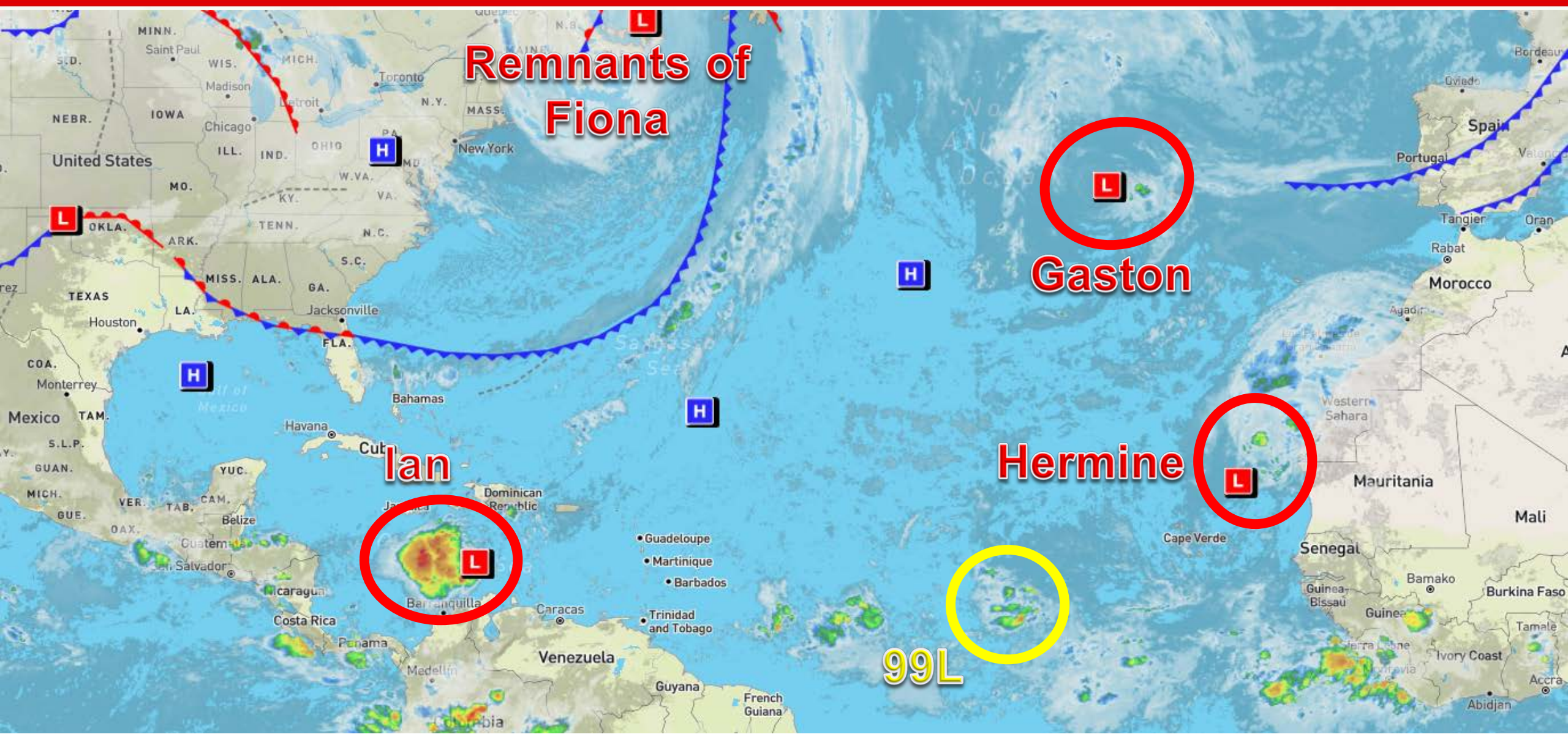
Tropical Storm Ian, Post-Tropical Cyclone Fiona, Tropical Storm Gaston, & Tropical Storm Hermine

This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office, or visit the National Hurricane Center website at www.hurricanes.gov.



Atlantic Basin Satellite Image

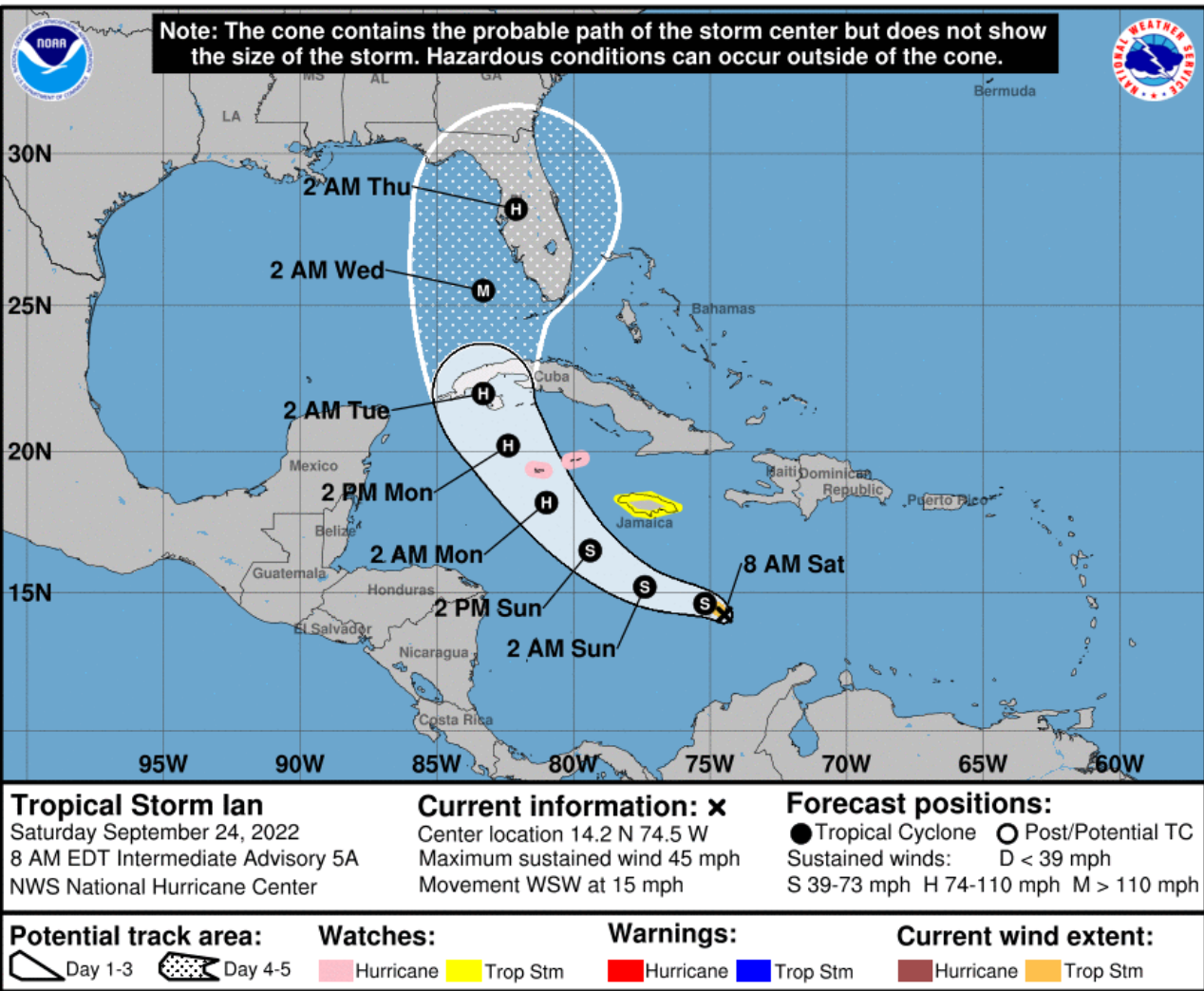
Chance of development: — None — Low — Medium — High





Forecast Cone

Tropical Storm Ian ([LINK](#))



- **Location:** 300 miles south-southeast of Kingston, Jamaica or about 855 miles southeast of Key West, Florida
- **Maximum Sustained Winds:** 45 mph
- **Current Movement:** WSW at 15 mph
- **FL Watches/Warnings:** None

A westward to west-northwestward motion is expected through early Sunday. A turn toward the northwest is forecast late Sunday, followed by a north-northwestward turn by late Monday. On the forecast track, the center of Ian is forecast to move across the central Caribbean Sea today, pass southwest of Jamaica on Sunday, and pass near or over the Cayman Islands Sunday night and early Monday. Ian will then approach western Cuba on Monday. Strengthening is forecast during the next few days, and Ian is expected to become a hurricane late Sunday or Sunday night.

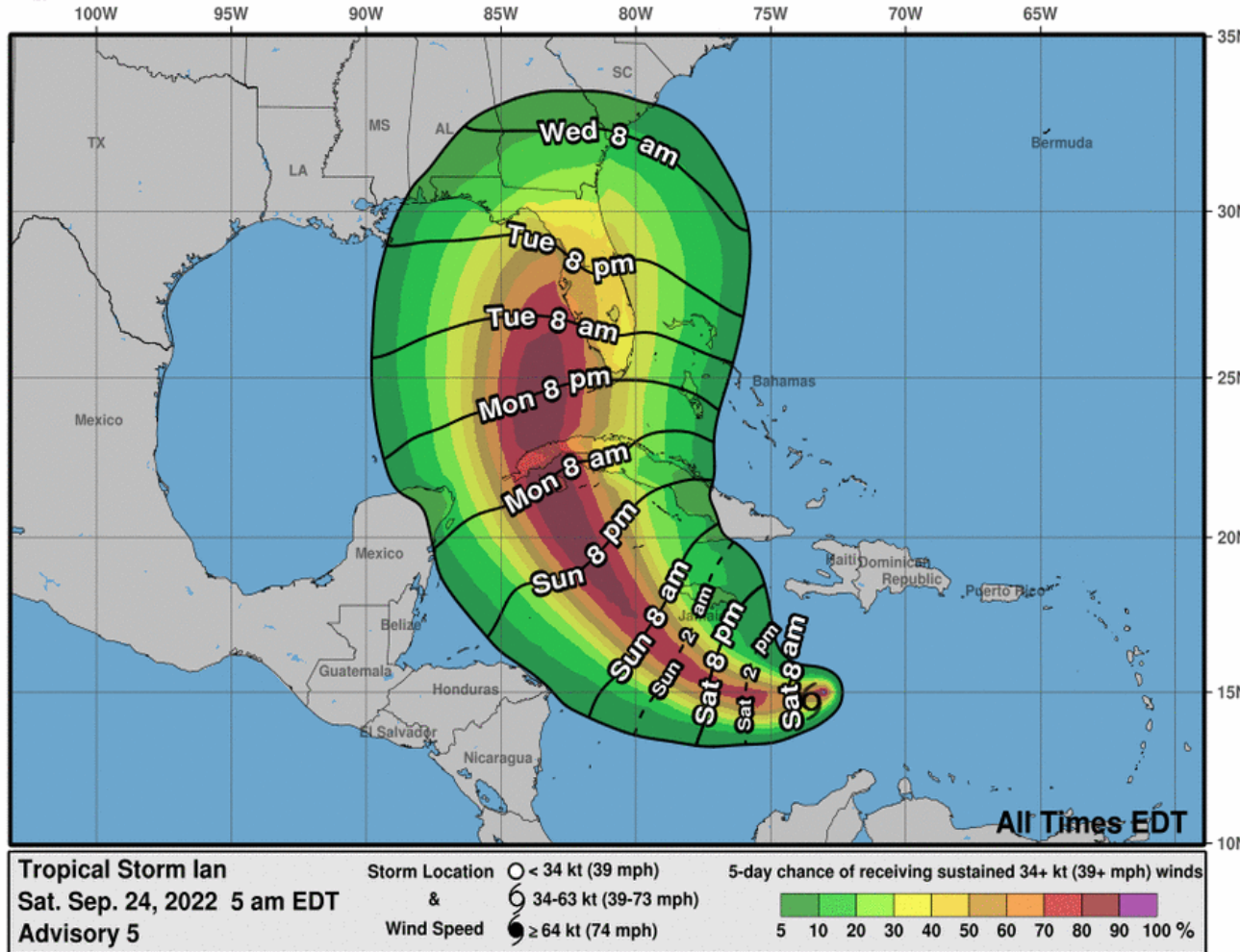
Ian poses no direct threat to Florida through the weekend, but tropical rains may begin to overspread across the Florida Keys and southern Peninsula Monday and tropical storm-force winds may arrive as early as late Monday evening and early Tuesday morning across the Florida Keys and southern Peninsula.



Tropical Storm-Force Wind Probabilities

Tropical Storm Ian ([LINK](#))

Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Key West – 69% (+9%)
Marathon – 57% (+2%)
Naples – 68% (+8%)
Miami – 36% (-1%)
West Palm Beach – 44% (+9%)
Tampa – 65% (+14%)
Orlando – 47% (+18%)
Cedar Key – 54% (+15%)
Gainesville – 41% (+16%)
Daytona Beach – 43%
Tallahassee – 20% (+7%)
Apalachicola – 29%
Jacksonville – 32%

The numbers in parenthesis show the change in probability since the last briefing packet.

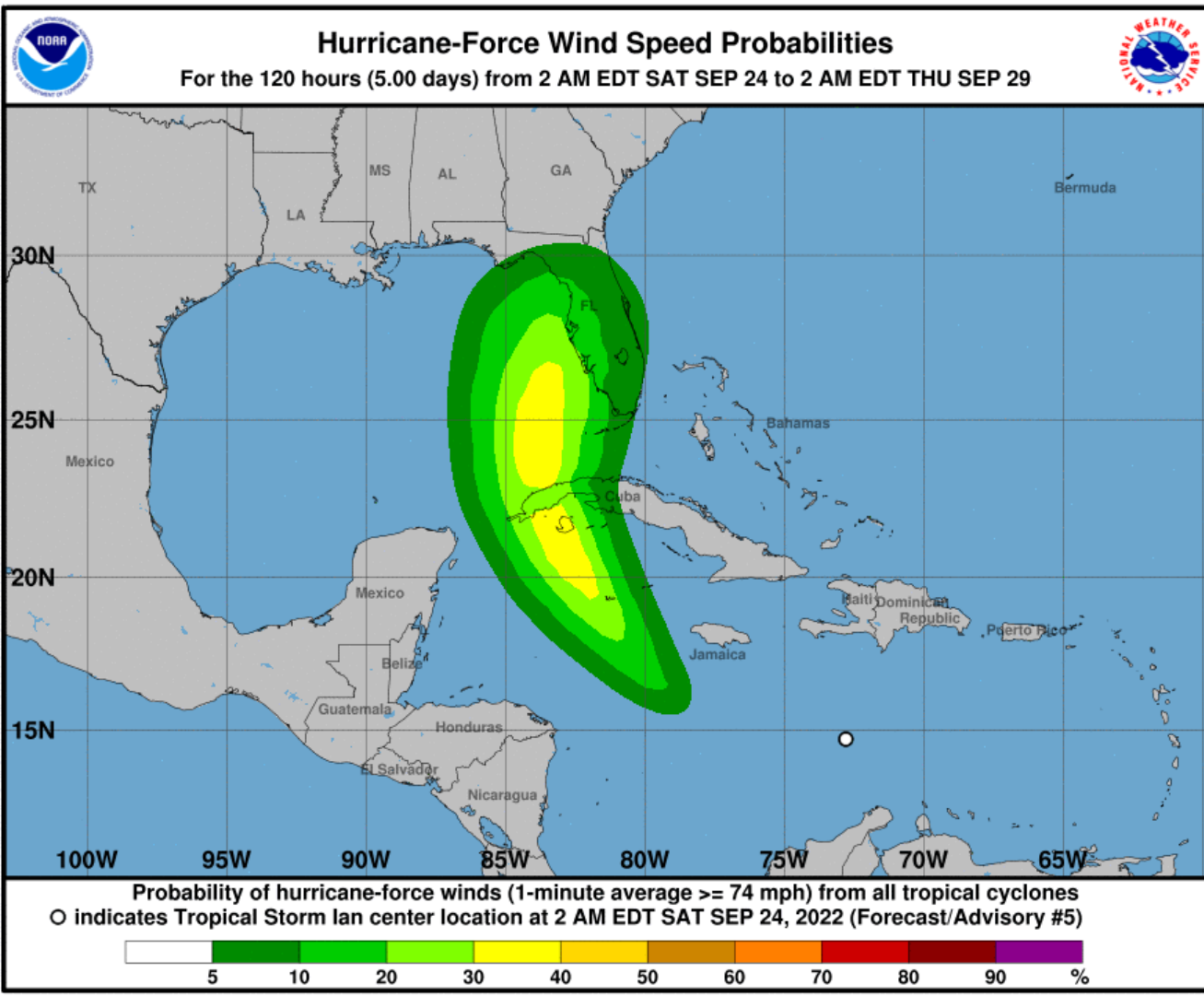
Tropical storm-force winds may begin as early as late Monday evening into early Tuesday morning along the Florida Keys and southern Peninsula. Tropical storm-force winds may begin as early as Tuesday morning and afternoon across the Peninsula (from south to north). Tropical storm-force winds may begin as early as Tuesday afternoon and evening across the Big Bend North Florida.

Tropical storm-force winds are most likely to begin Tuesday morning along the Florida Keys, Tuesday afternoon and evening across the southern Peninsula, and Wednesday morning along and north of the I-4 corridor.

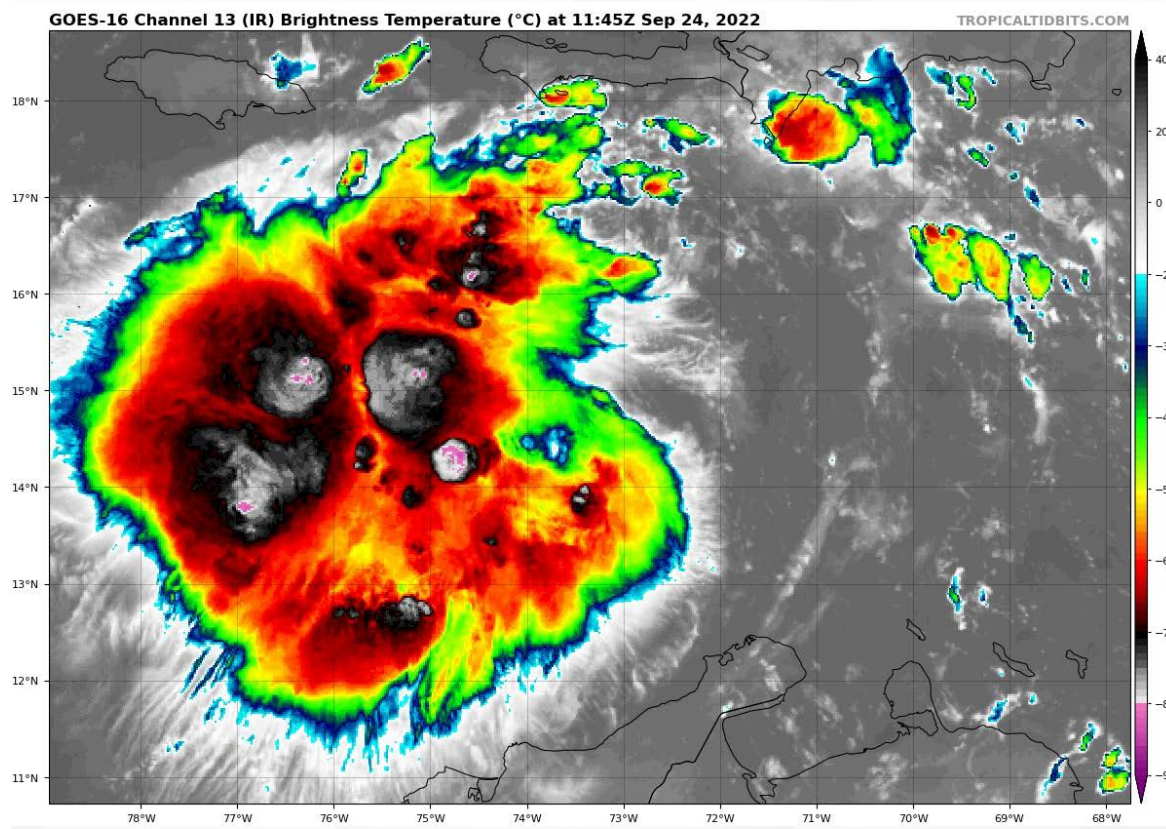


Hurricane-Force Wind Probabilities & Satellite Imagery

Tropical Storm Ian ([LINK](#))



A Hurricane Watch remains in effect for the Cayman Islands and a Tropical Storm Watch remains in effect for Jamaica. There is now a 2 in 10 chance of the Lower and Middle Keys and the West Coast of Florida seeing hurricane-force winds. There is now a 3 in 10 chance for the immediate Gulf coastline seeing hurricane-force winds.



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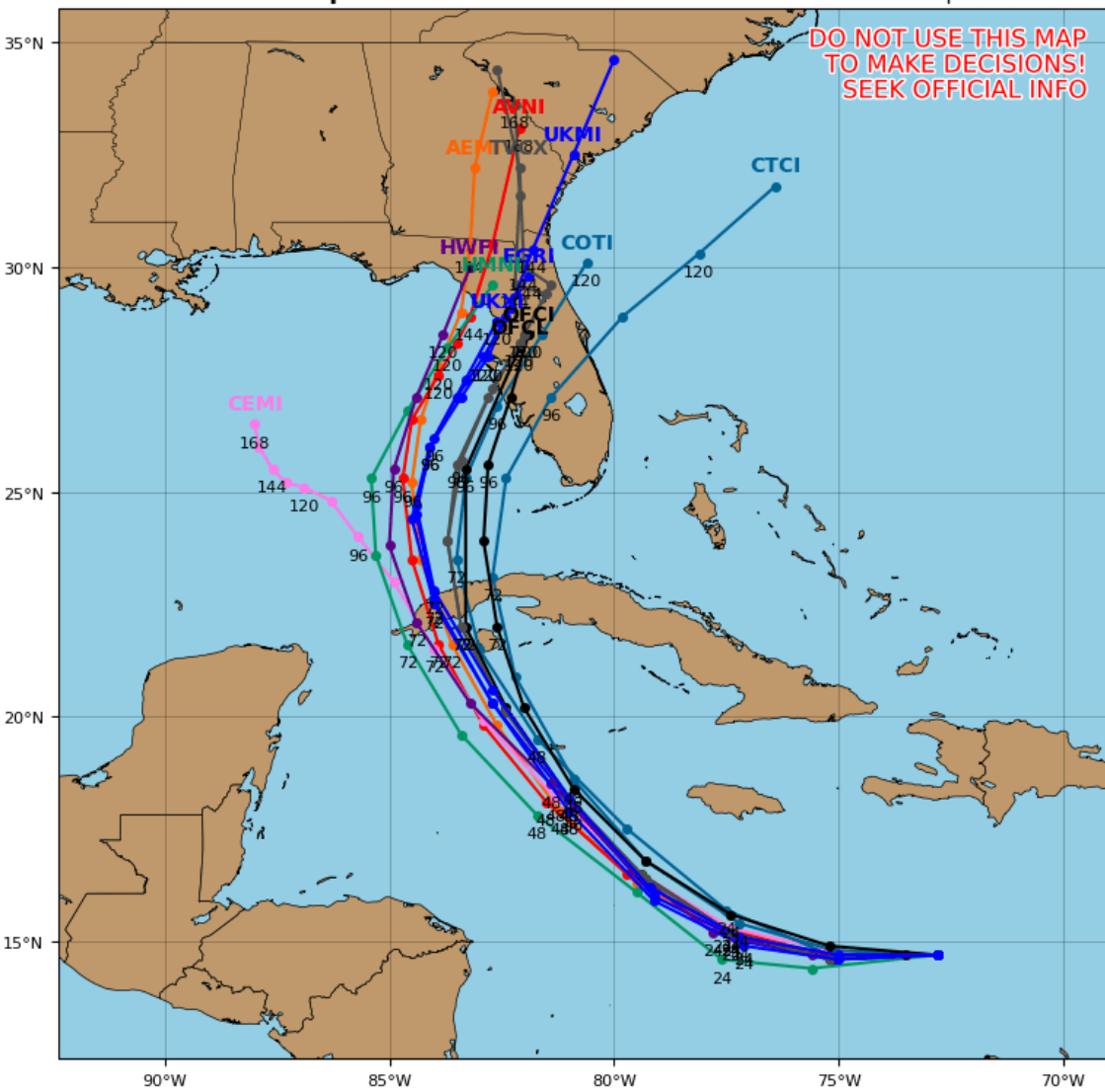
Model Forecasts – Next 5 Days

Tropical Storm Ian

Tropical Storm IAN Model Track Guidance

Initialized at 06z Sep 24 2022

Levi Cowan - tropicaltidbits.com



Computer models are in decent agreement that Ian is expected to reach the western periphery of an area of high pressure on Sunday, and a general turn toward the west-northwest and northwest may begin in 36-48 hours over the northwestern Caribbean Sea. After that time, Ian is forecast to turn north-northwestward bringing the system near or over western Cuba in about 3 days.

Later in the forecast period, once Ian emerges over the southern Gulf of Mexico, computer model guidance begins to spread with some solutions showing a slower, further westward track and others depicting a quicker, eastward track. The general trend with the overnight model guidance has slightly shifted westward; however, there is decent agreement that Ian will begin to recurve toward the Florida Gulf Coast during the middle parts of next week.

The initialization of Ian's vertically stacked center of circulation, coupled with the interaction with an upper-level disturbance over the eastern U.S. will ultimately determine the system's forward speed, track, and maximum intensity. Additional adjustments to the forecast track, particularly days 4-5, may occur over the next advisories.

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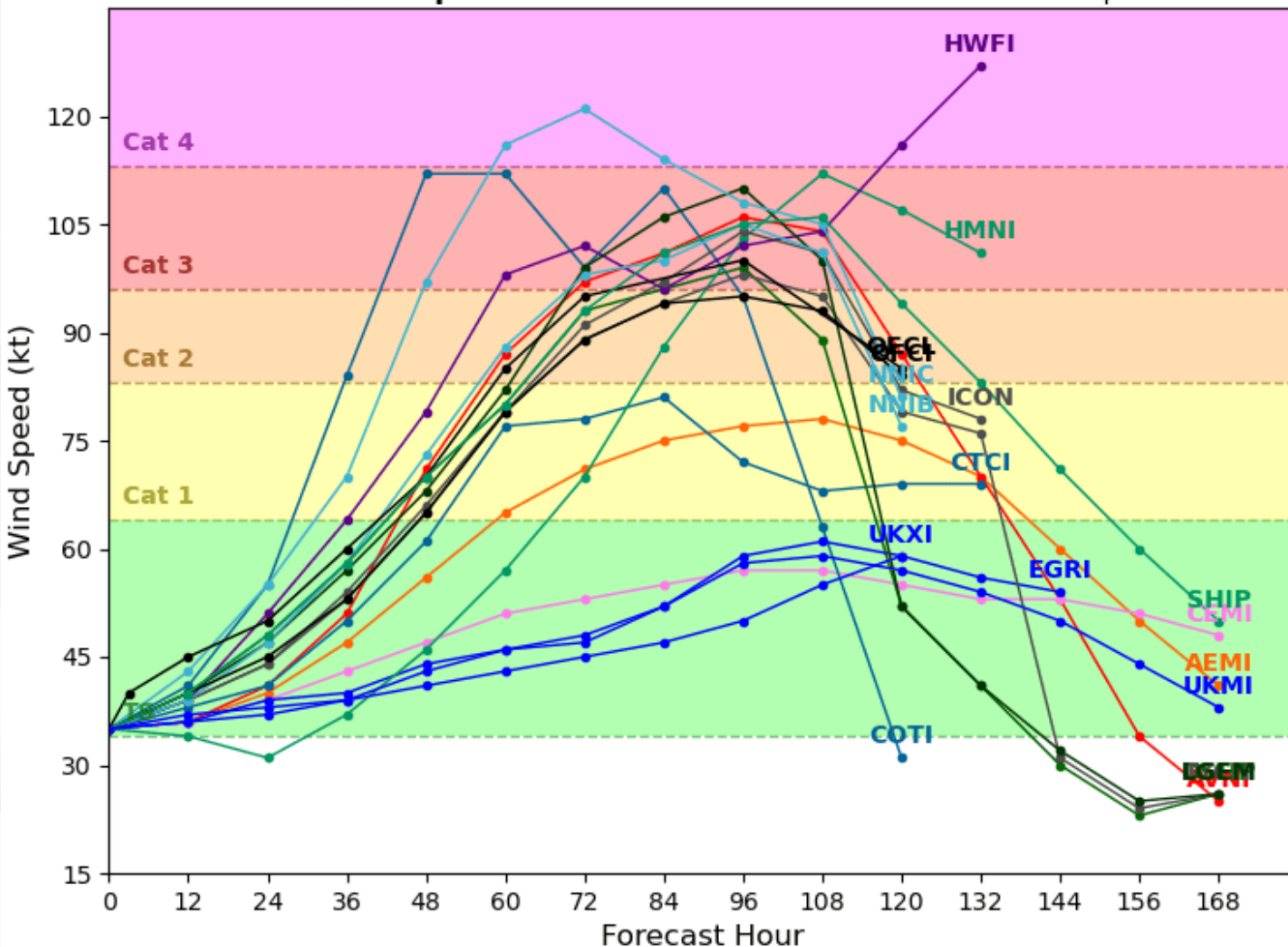
Model Forecast Intensity

Tropical Storm Ian

Tropical Storm IAN Model Intensity Guidance

Initialized at 06z Sep 24 2022

Levi Cowan - tropicaltidbits.com



The northeasterly wind shear that has been impacting Ian will continue to decrease over the next day or two while the cyclone moves over the warm waters of the central and northwestern Caribbean Sea. Computer models are in decent agreement that Ian will strengthen to at or near hurricane intensity over the next 24-36 hours. Atmospheric and oceanic and atmospheric conditions are forecast to allow for steady strengthening once an inner core becomes established, with a significant strengthening forecast between the 24-hour and 72-hour period. Computer model guidance is in good fairly good agreement that Ian is likely to be near major hurricane intensity when it approaches western Cuba.

Since Ian is not expected to remain over Cuba long, little weakening is forecast due to that land interaction, and the forecast again shows Ian as a major hurricane over the eastern Gulf when it is approaching West Florida.



Key Messages

From the National Hurricane Center



Key Messages for Tropical Storm Ian

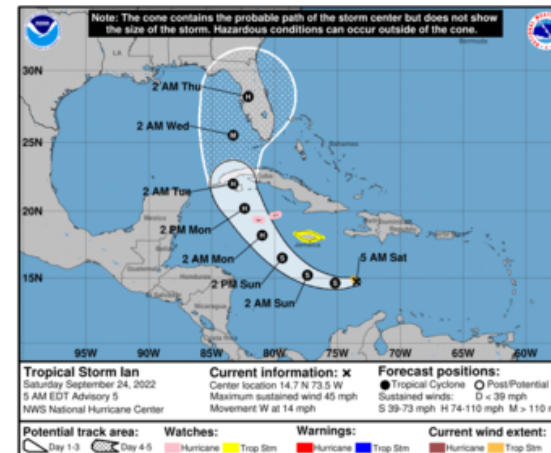
Advisory 5: 5:00 AM EDT Sat Sep 24, 2022



1. Ian is expected to produce heavy rainfall and instances of flash flooding and possible mudslides in areas of higher terrain, particularly over Jamaica and Cuba.

2. Hurricane conditions are possible in the Cayman Islands by early Monday, with tropical storm conditions possible by late Sunday. Tropical storm conditions are possible in Jamaica on Sunday.

3. Early next week, Ian is forecast to move near or over western Cuba as a strengthening hurricane and then approach the Florida peninsula at or near major hurricane strength, with the potential for significant impacts from storm surge, hurricane-force winds, and heavy rainfall. While it is too soon to determine the exact magnitude and location of these impacts, residents in Cuba, the Florida Keys, and the Florida peninsula should ensure they have their hurricane plan in place and closely monitor forecast updates through the weekend.



For more information go to hurricanes.gov

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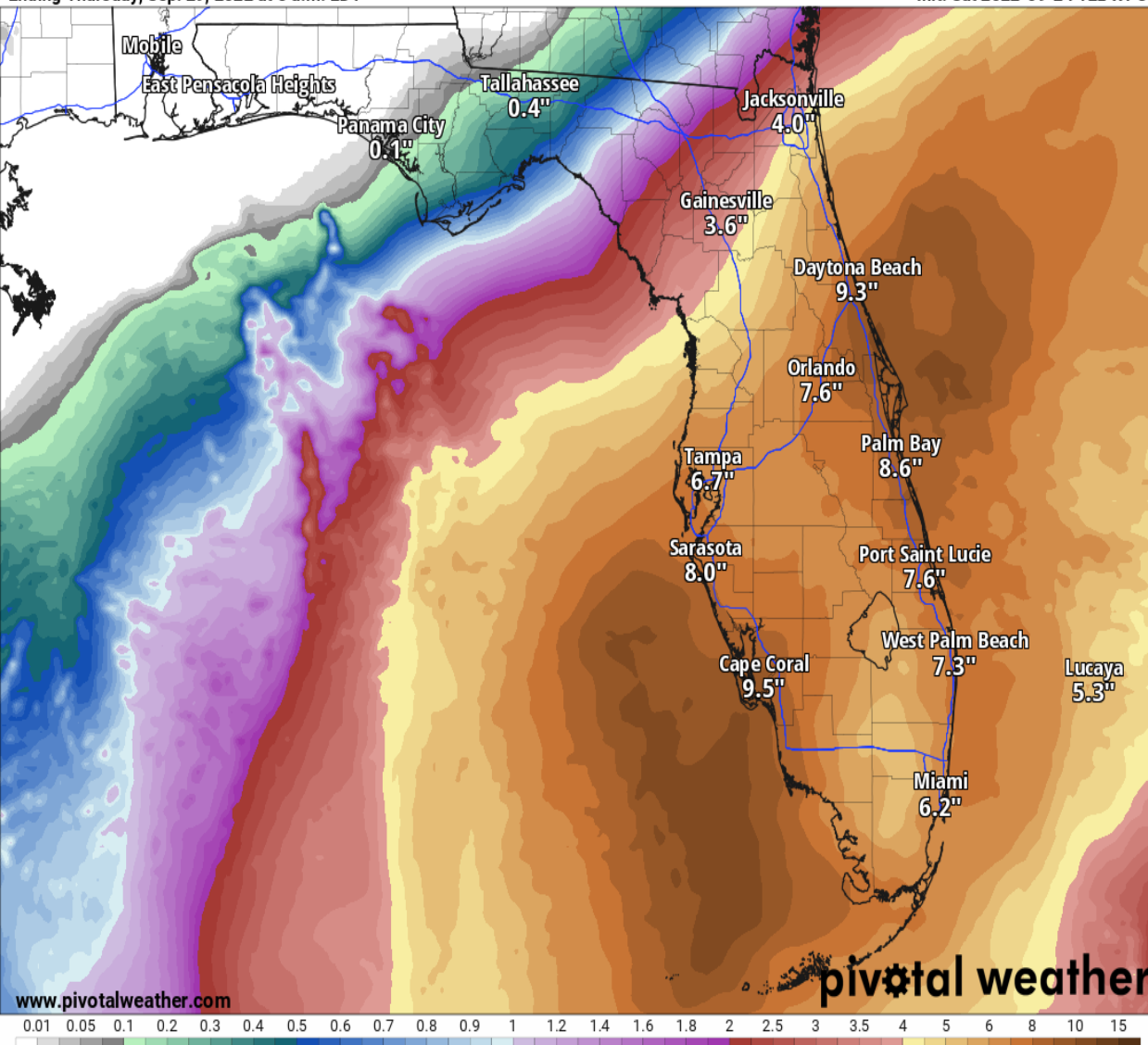
5-Day Forecast Rainfall

From the Weather Prediction Center

120-Hour Precipitation (in)

Ending Thursday, Sep. 29, 2022 at 8 a.m. EDT

Init: Sat 2022-09-24 12z WPC



While it is still too early to determine where the heaviest rainfall totals will occur, widespread rainfall totals of 3-6" can be expected over the next 5 days (mainly along and south of the I-4 corridor). The heaviest rainfall totals are currently forecast along the Peninsula coastline, with locally 8-12" possible.

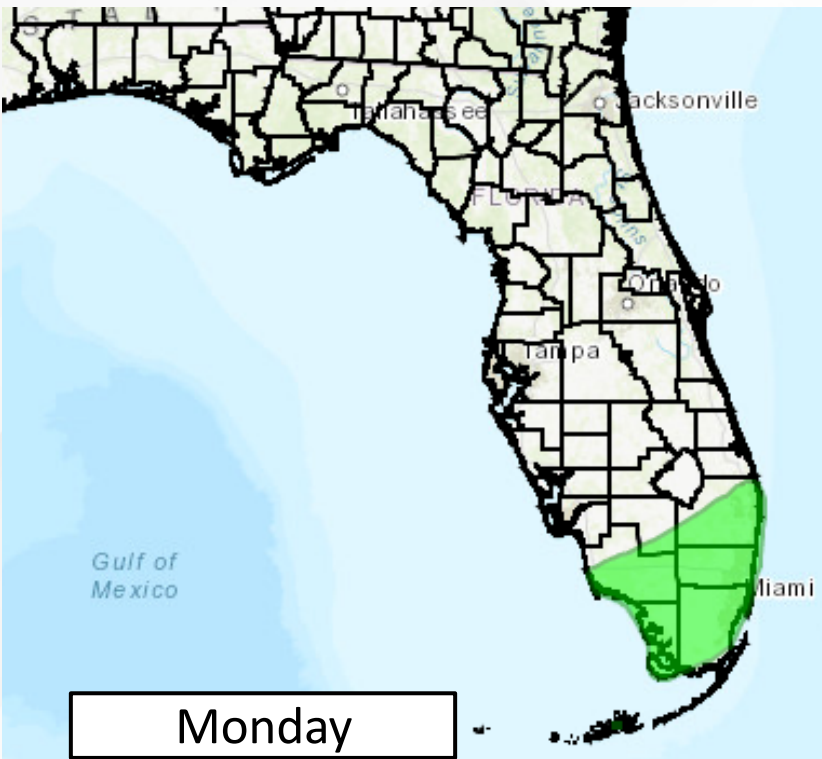
It is important to note that the exact track of Ian will greatly influence where the heaviest rainfall occurs. A further westward, slower track would result in heavier rainfall totals overspreading northward to the Big Bend and eastern Panhandle, with an eastward, quicker track confining heavy rainfall to the Peninsula and along the immediate coastlines.

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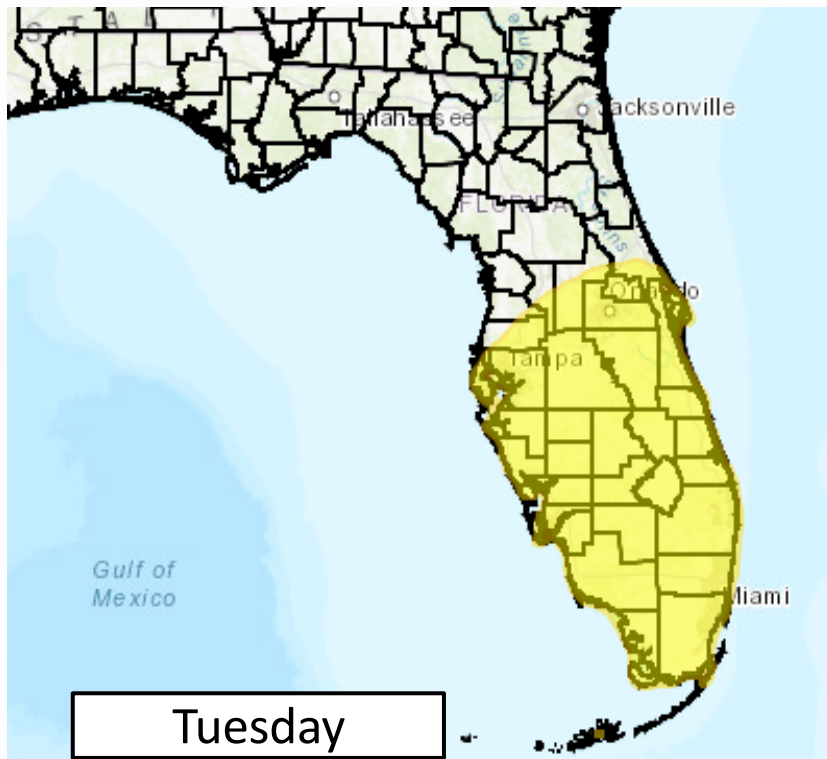


Flash Flood Outlooks

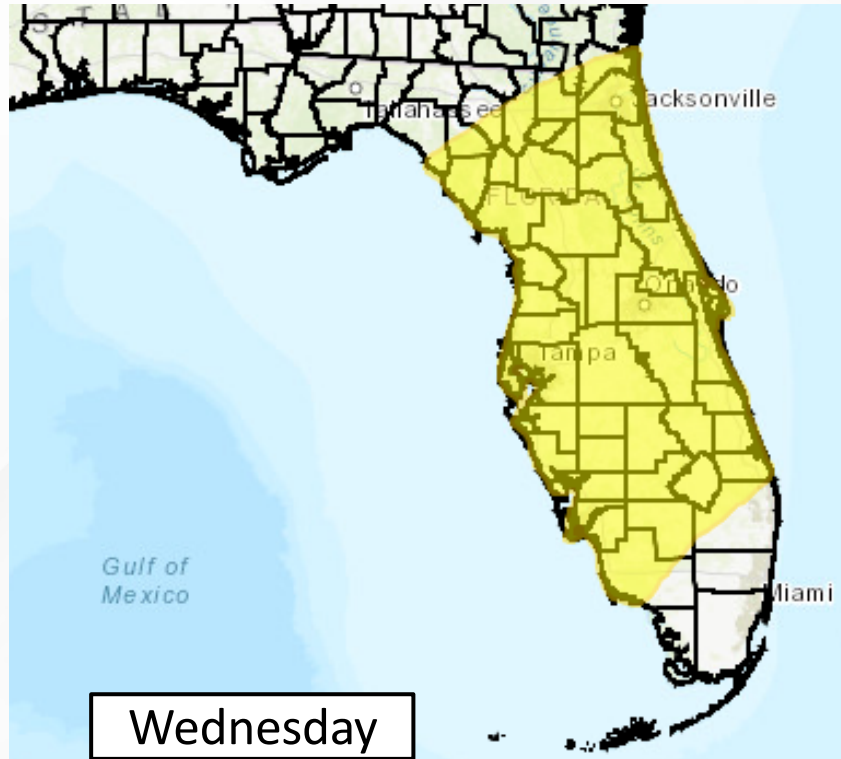
From the Weather Prediction Center



Monday



Tuesday



Wednesday

Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line

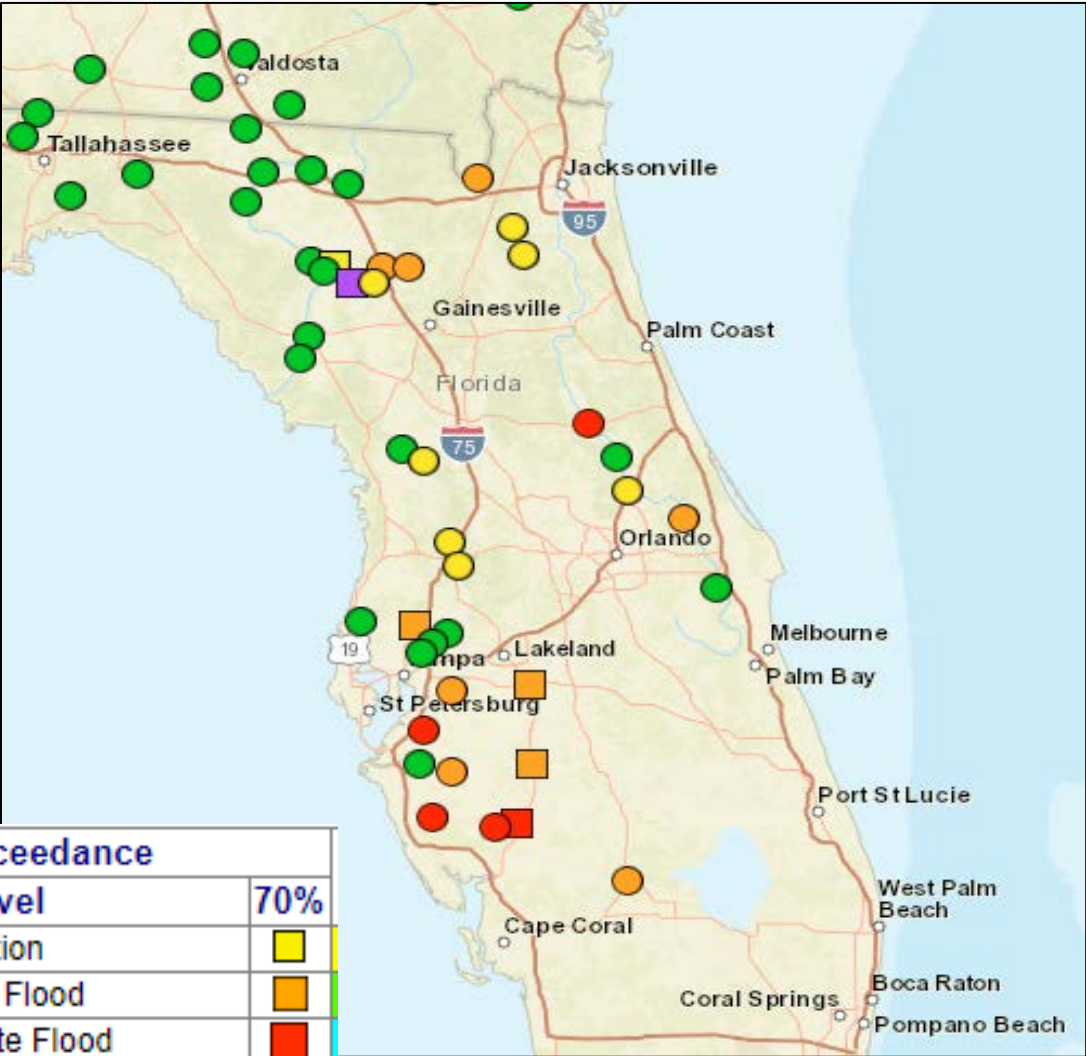
HIGH: > 50% **SLGT: 10%-20%**
MDT: 20%-50% **MRGL: 5%-10%**

Understanding WPC Excessive Rainfall Risk Categories				
No Area/Label	MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected.	Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected
@NWSWPC	Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.	Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.



Possible River Flooding

Chance of River Flooding Based on Range of Forecasted Rainfall



Based on
forecast rainfall,
POSSIBLE river
crest levels next
week

Chance of Exceedance		
30%	Level	70%
	Action	
	Minor Flood	
	Moderate Flood	
	Major Flood	
= less than 30% chance of reaching Action level		

Minor to moderate riverine flooding

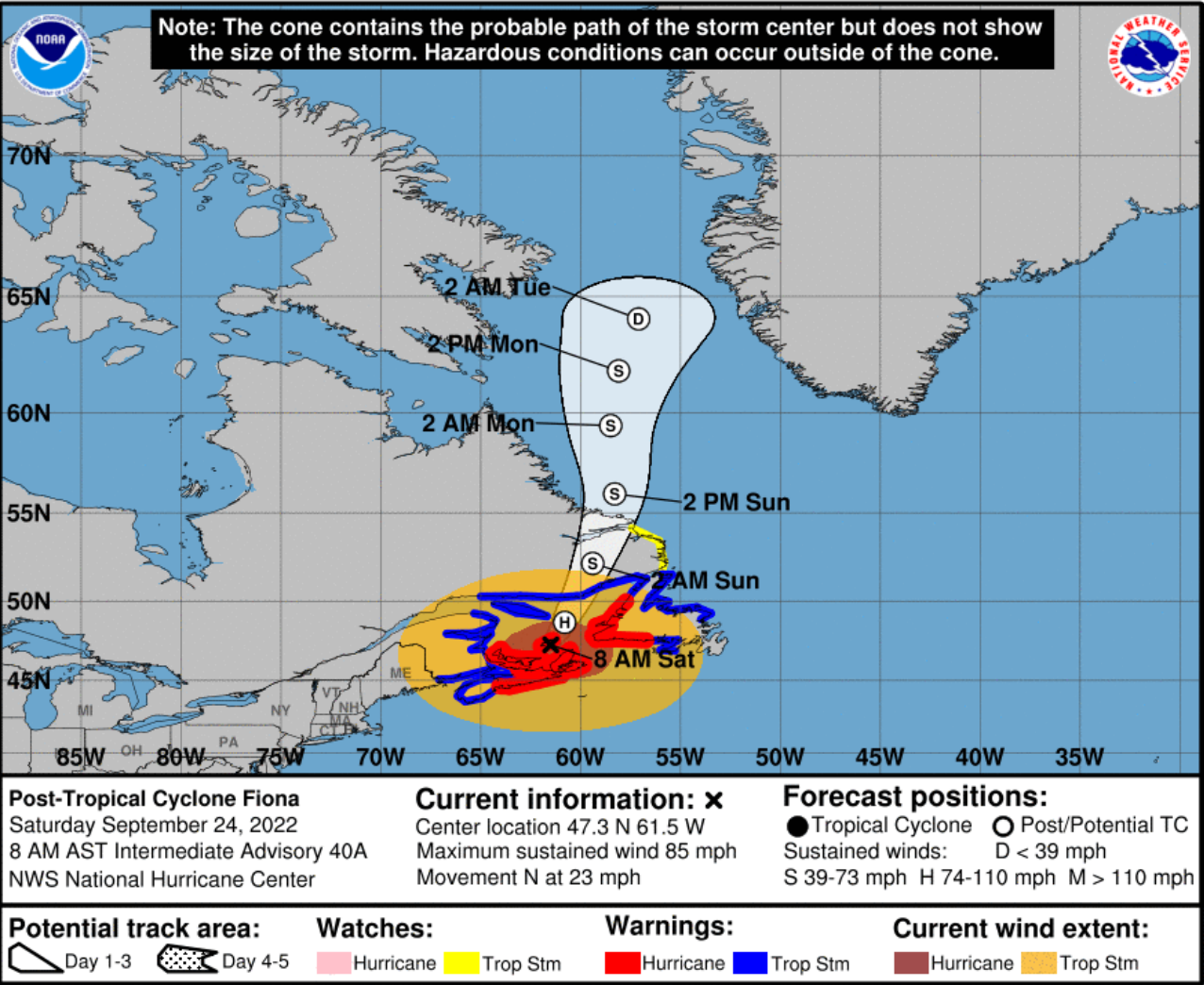
continues this morning in the Tampa Bay and Peace basins following several days of heavy rainfall in the Florida Peninsula. While these rivers are receding, the combination of additional heavy rainfall and wet antecedent conditions would leave these areas more susceptible for flooding.

There is the potential for significant river flooding, particularly in the central and northern Florida Peninsula basins where some rivers are already above flood stage.



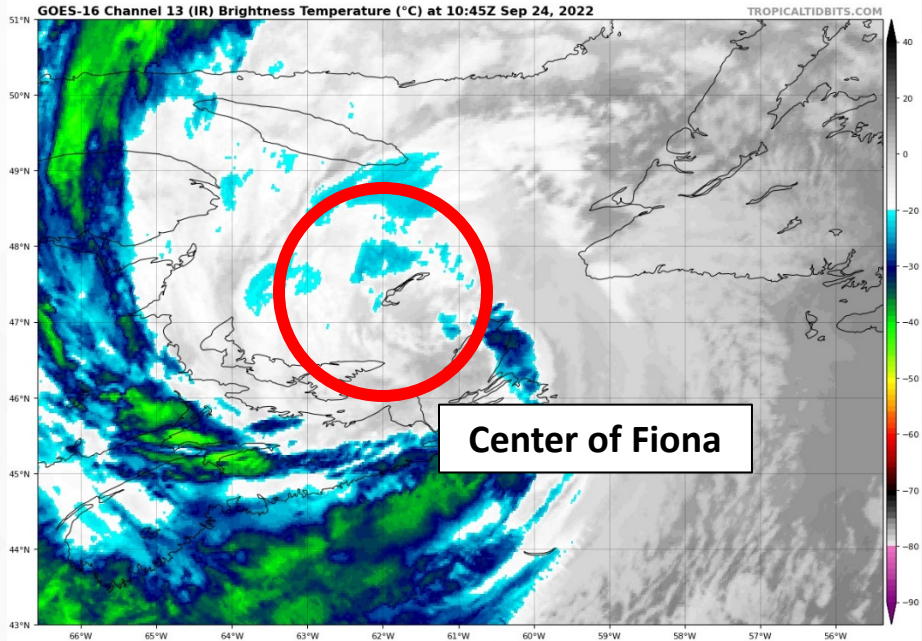
Forecast Cone & Satellite Imagery

Post-Tropical Cyclone Fiona ([LINK](#))



- **Location:** 160 miles northeast of Halifax, Nova Scotia
- **Maximum Sustained Winds:** 90 mph
- **Current Movement:** N at 26 mph
- **FL Watches/Warnings:** None

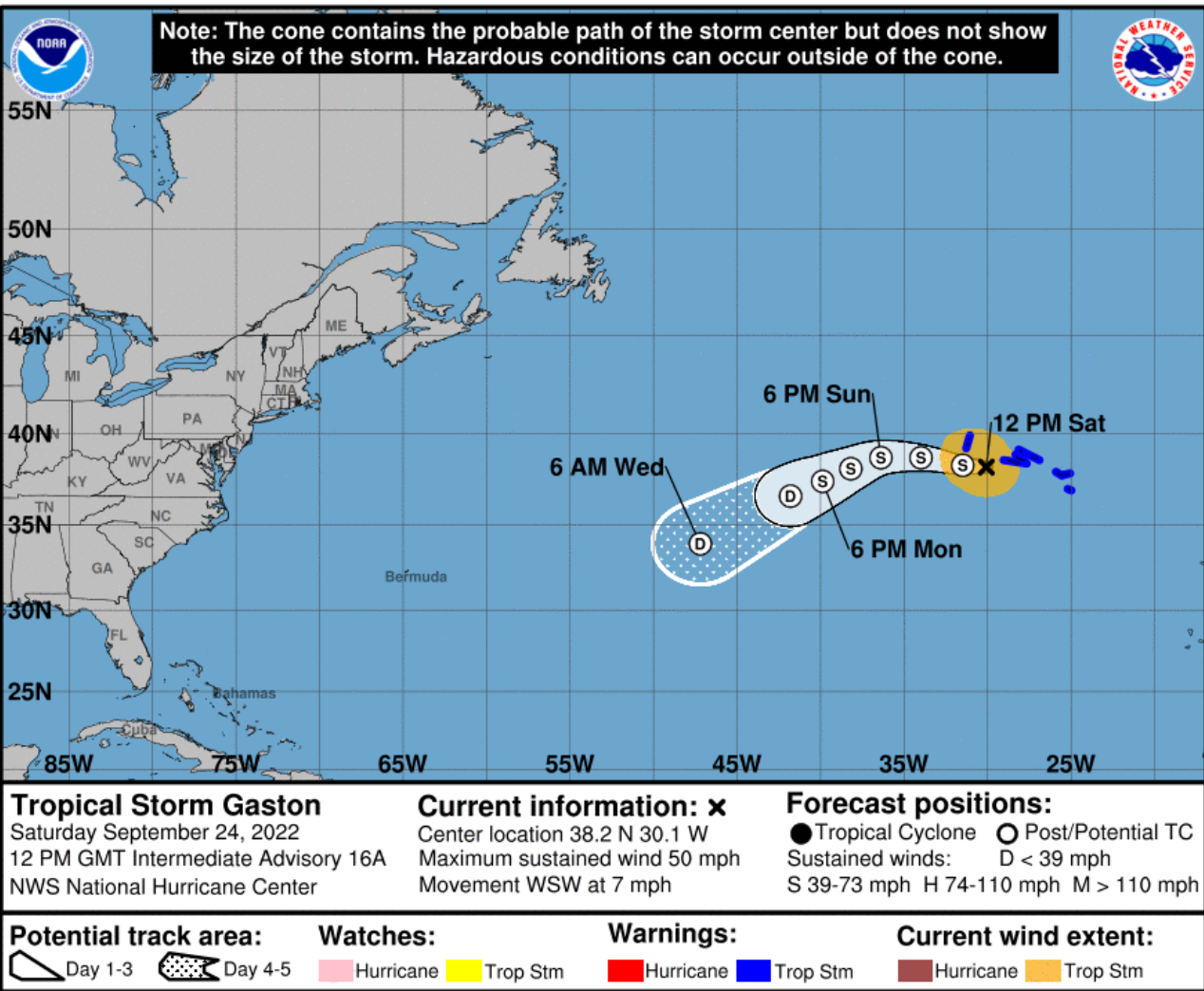
A slower north-northeastward or northward motion is expected through Sunday, moving across eastern Nova Scotia and into the Gulf of St. Lawrence this morning. Although gradual weakening is forecast during the next couple of days, Fiona is expected to maintain hurricane-force winds until this afternoon. *Long-period ocean swell and an increased risk of rip currents will continue along Florida's East Coast this weekend.*



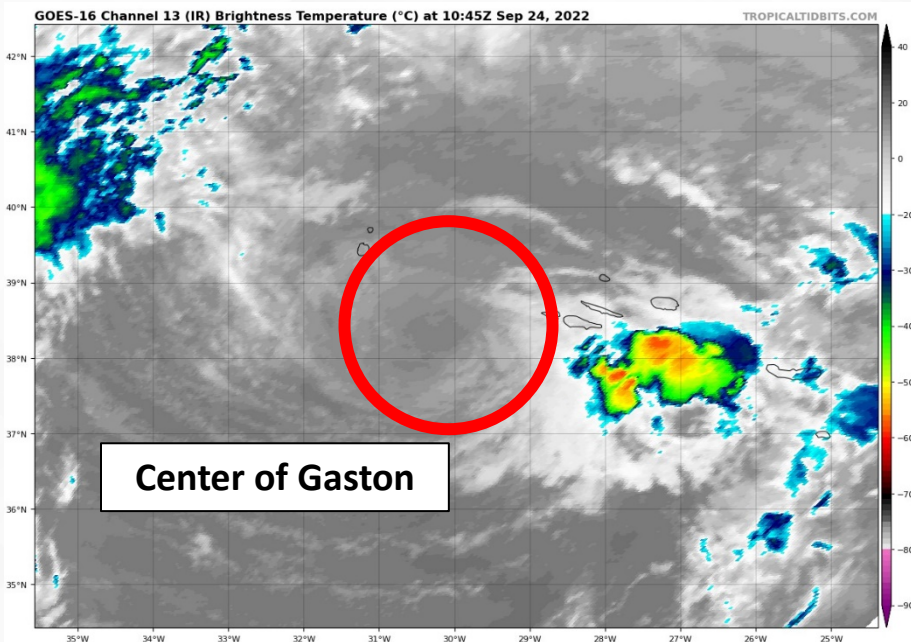


Forecast Cone and Satellite Imagery

Tropical Storm Gaston ([LINK](#))



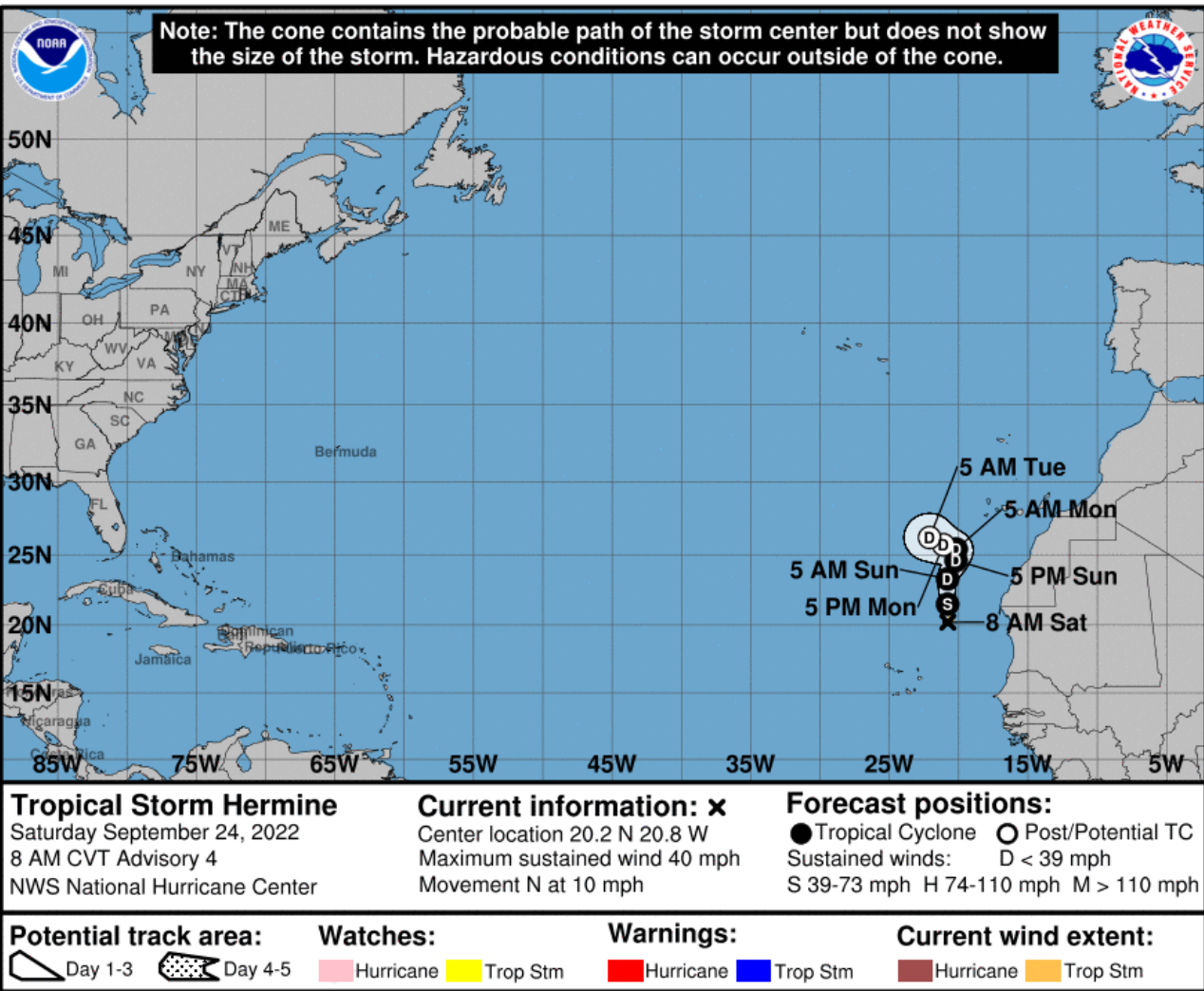
- **Location:** 80 miles west of the central Azores
 - **Maximum Sustained Winds:** 50 mph
 - **Current Movement:** WSW at 9 mph
 - **FL Watches/Warnings:** None
- A turn toward the west is anticipated later today. Gradual weakening is forecast over the next few days, and Gaston is expected to become a post-tropical cyclone later today. *Gaston poses no threat to Florida.*





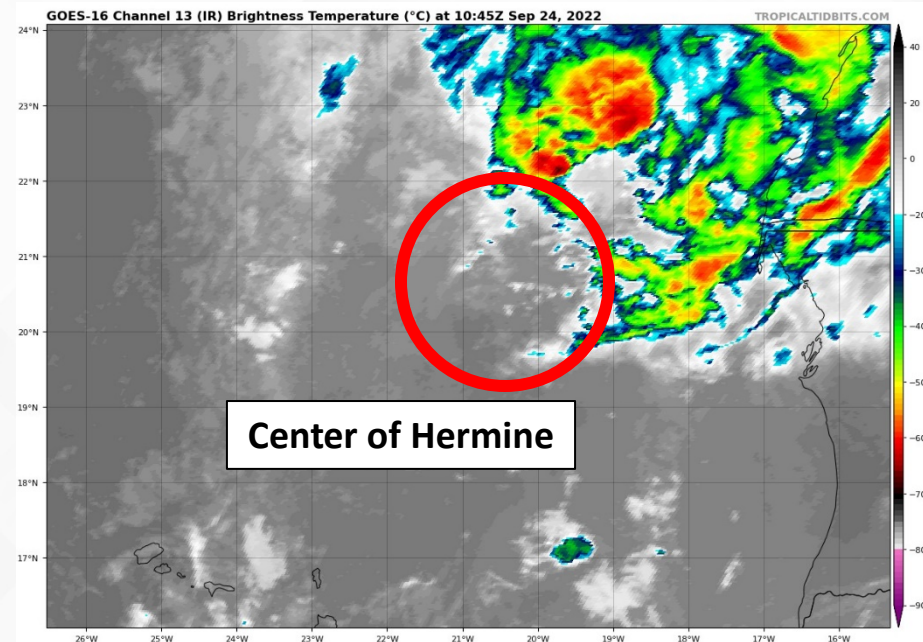
Forecast Cone and Satellite Imagery

Tropical Storm Hermine ([LINK](#))



- **Location:** 260 miles northeast of the Cabo Verde Islands
- **Maximum Sustained Winds:** 40 mph
- **Current Movement:** N at 10 mph
- **FL Watches/Warnings:** None

This general motion is expected to continue today and tonight. A turn toward the northeast should occur by late Sunday, followed by a turn to the northwest by Monday night. Weakening is expected to occur today, and Hermine could be a remnant low on Monday. *Hermine poses no threat o Florida.*





Summary

Tropical Storm Ian:

- At 11:00 PM EDT Friday night, Tropical Depression Nine strengthened into Tropical Storm Ian.
- As of 8:00 AM EDT Saturday, Ian is located about 300 miles south-southeast of Kingston, Jamaica or about 855 miles southeast of Key West, Florida.
- A westward to west-northwestward motion is expected through early Sunday. A turn toward the northwest is forecast late Sunday, followed by a north-northwestward turn by late Monday.
- On the forecast track, the center of Ian is forecast to move across the central Caribbean Sea today, pass southwest of Jamaica on Sunday, and pass near or over the Cayman Islands Sunday night and early Monday. Ian will then approach western Cuba on Monday.
- Maximum sustained winds are near 45 mph. Strengthening is forecast during the next few days, and Ian is expected to become a hurricane late Sunday or Sunday night.

Post-Tropical Cyclone Fiona:

- At 5:00 AM Saturday, Fiona is located about 160 miles northeast of Halifax, Nova Scotia and moving north at 26 mph.
- A slower north-northeastward or northward motion is expected through Sunday, moving across eastern Nova Scotia and into the Gulf of St. Lawrence this morning.
- Maximum sustained winds are near 90 mph. Although gradual weakening is forecast during the next couple of days, Fiona is expected to maintain hurricane-force winds until this afternoon.

Tropical Storm Gaston:

- At 5:00 AM Saturday, Gaston is located about 80 miles west of the central Azores and moving west-southwestward at 9 mph.
- A turn toward the west is anticipated later today.
- Maximum sustained winds are near 50 mph. Gradual weakening is forecast over the next few days, and Gaston is expected to become a post-tropical cyclone later today.

Tropical Storm Hermine:

- At 5:00 AM Saturday, Hermine is located about 360 miles northeast of the Cabo Verde Islands, and moving north at 10 mph.
- This general motion is expected to continue today and tonight. A turn toward the northeast should occur by late Sunday, followed by a turn to the northwest by Monday night.
- Maximum sustained winds are near 40 mph, and weakening is expected to occur today. Hermine could be a remnant low on Monday.

Florida Outlook:

- Fiona, Gaston, and Hermine pose no direct threat to Florida and there are no wind or surge watches in effect for Florida.
- However, ocean swells and persistent easterly flow from distant Major Hurricane Fiona will continue dangerous beach and boating conditions along Florida's East Coast into the weekend.
- Ian poses no direct threat to Florida through the weekend, but tropical rains may begin to overspread across the Florida Keys and southern Peninsula Monday and tropical storm-force winds may arrive as early as late Monday evening and early Tuesday morning across the Florida Keys and southern Peninsula.
- Tropical storm-force winds may begin as early as Tuesday morning and afternoon across the Peninsula (from south to north). Tropical storm-force winds may begin as early as Tuesday afternoon and evening across the Big Bend North Florida.
- Tropical storm-force winds are most likely to begin Tuesday morning along the Florida Keys, Tuesday afternoon and evening across the southern Peninsula, and Wednesday morning along and north of the I-4 corridor.
- It is too early to determine the exact magnitude and location of storm-specific threats such as storm surge values, exact location of the heaviest rainfall totals, and isolated tropical tornadoes; do not focus on the "center point" on the forecast cone, but remember that hurricane impacts can span well beyond the forecast cone.
- The next name on the list is Julia.

The next briefing packet will be issued Saturday Afternoon. For the latest information, please visit the [National Hurricane Center website](#).



Tropical Update

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State Meteorological Support Unit

Florida Division of Emergency Management

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